

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO. 09/891,545
ATTORNEY DOCKET NO. Q64735

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method for enabling a user registered in an Network Access Server as already connected to a host Virtual Private Network to communicate with at least one communication device outside of said host Virtual Private Network, said Network Access Server having access over a data communication network to said communication device and to a plurality of Virtual Private Networks including said host Virtual Private Network, wherein said method comprises:

detecting a message being sent from ~~sending messages belonging to a communication between said user to and~~ said communication device while said user is currently connected to said host Virtual Private Network; and

directing said message to ~~over~~ a logical channel between said Network Access Server and said communication device, wherein said logical channel has, as a logical channel identifier, ~~referring to an identifier of said host Virtual Private Network to which said user is currently~~ connected.

2. (*Currently Amended*) The method according to claim 1, wherein said method further comprises:

detecting, at said Network Access Server, the a-message being sent from said user ~~destined~~ to said communication device; and

forwarding said message from said Network Access Server to said communication device over said ~~the~~ logical channel identified by referring to the identifier of said host Virtual Private Network.

3. (*Currently Amended*) The method according to claim 1, wherein said method further comprises:

detecting a message from said communication device being received at said Network Access Server on the logical channel having, as a logical channel identifier, referring to the identifier of said host Virtual Private Network, said message containing a user destination address;

determining a user registered in said Network Access Server as already connected to said host Virtual Private Network and corresponding to said destination address; and

forwarding said message from said Network Access Server to said user.

4. (*Previously Presented*) The method according to claim 1, wherein said messages belonging to the communication between said user and said communication device are encapsulated in data packets, said data packets comprising a field containing said identifier of said host Virtual Private Network or an indication derived from said identifier.

5. (*Currently Amended*) The method according to claim 4, wherein said messages belonging to the communication between said user and said communication device are sent over a tunnel, wherein said tunnel has, as a tunnel identifier, having said identifier of said host Virtual Private Network ~~as tunnel identifier~~.

6. (*Previously Presented*) The method according to claim 1, wherein said messages contain IP packets comprising an IP address of said user.

7. (*Previously Presented*) The method according to claim 1, wherein said communication device is a server belonging to a local Virtual Private Network associated to said Network Access Server and different from said host Virtual Private Network.

8. (*Currently Amended*) A Network Access Server for enabling a communication between a user and a communication device, said user being registered in said Network Access Server as already connected to a host Virtual Private Network, said communication device being outside of said host Virtual Private Network, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said host Virtual Private Network, said Network Access Server comprising:

means for detecting a message being sent from said user to said communication device while said user is currently connected to said host Virtual Private Network; and

means for sending said message ~~messages originating from said user and destined to said communication device~~ on a logical channel between said Network Access Server and said communication device, wherein said logical channel has, as a logical channel identifier, referring ~~to~~ said identifier of said host Virtual Private Network to which said user is currently connected.

9. (*Currently Amended*) A Network Access Server for identifying a user, from a plurality of users, to which a message sent by a communication device and received at said Network Access Server, said user being already connected over said Network Access Server to a Virtual Private Network not included in said communication device, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said Virtual Private Network to which said user is already connected, said Network Access Server comprising:

a logical channel controller for determining a logical channel identifier of one logical channel on which said message is received at said Network Access server, wherein said logical channel has, as a logical channel identifier, said identifier of said host Virtual Private Network to which said user is currently connected; and

means for identifying the user to which said message is destined, according to said logical channel identifier and said user identifier in said database.

10. (*Currently Amended*) A Network Access Server for enabling a communication between a user and a communication device, said user being registered in said Network Access Server as already connected to a host Virtual Private Network, said communication device being outside of said host Virtual Private Network, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said host Virtual Private Network, said Network Access Server comprising a forwarding engine for detecting messages being sent from said user to said communication device while said user is currently connected to said host Virtual Private Network and for sending said messages originating from said user and destined to said communication device on a logical channel between said Network Access Server and said communication device, wherein said logical channel has, as a logical channel identifier, referring to said identifier of said host Virtual Private Network to which said user is currently connected.

11. (*Previously Presented*) The Network Access Server according to claim 10, further comprising a logical channel controller that directs the message on the logical channel between said Network Access Server and said communication device.

12. (*Currently Amended*) A Network Access Server for identifying a user, from a plurality of users, to which a message sent by a communication device and received at said Network Access Server, said user being already connected over said Network Access Server to a Virtual Private Network not included in said communication device, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said Virtual Private Network to which said user is already connected, said Network Access Server comprising:

a logical channel controller for determining a logical channel identifier of one logical channel on which said message is received at said Network Access server, wherein said logical channel has, as a logical channel identifier, said identifier of said host Virtual Private Network to which said user is currently connected; and

a database searcher for identifying the user to which said message is destined, according to said logical channel identifier and said user identifier in said database.

13. (*Previously Presented*) The Network Access Server according to claim 12, further comprising a forwarding engine that forwards said message from said logical controller to said user after said user has been identified.